

### REMARKS

The Applicant appreciates the courteous and complete examination of the application by the Examiner. In view of the foregoing amendments and the following remarks, a reconsideration of the instant application is respectfully requested.

In order to expedite the prosecution of this application, claim 18 has been amended to correct an antecedent error. Claims 1-19 are now in the present application and respectfully believed to be in condition for allowance.

Multiple attempts to reach the Examiner by telephone were unsuccessful and resulted in voice messages.

#### **Regarding the Claim § 102 Rejections**

The Examiner rejects claim 1-19 under 35 U.S.C. 102(b) as being anticipated by Matt (US 5,307,708). The Examiner states that the Matt reference discloses "a first cylindrical section (unnumbered, see Fig 3)". The Applicant respectfully points out that no where in the Matt reference is "a first cylindrical section" disclosed. The Matt reference has a tapered widening (6) on one end face (5) of a cam (2), "wherein the angle of opening of this funnel-like widening (6) amounts to approximately 20°" [col. 3 lines 9-15]. The Applicant would like the Examiner to be aware that the parent application (EP1525406) of this present application has been granted having similar claims.

#### *Regarding independent claims 1, 18 and 19*

Claims 1, 18 and 19 each claim a hub having three specific structural limitations of a first cylindrical section adjacent a front face, an insertion area adjacent the first cylindrical section, and a second cylindrical section adjacent the insertion area. Since the Matt reference does not disclose, teach or suggest a first cylindrical section it is therefore respectfully believed that it can not be a proper 35 U.S.C. 102(b) rejection. The Applicant respectfully points out that every claimed limitation must be disclosed in the Matt reference to be a proper rejection of the claims. The claimed "first cylindrical section" overcomes a specific problem and disadvantage of the Matt reference.

Furthermore, the Applicant respectfully points out that MPEP 2131 states "A claim is anticipated only if each and every element as set forth in the claim is found,

either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As discussed herewith, the Matt reference does not disclose, teach or suggest all the limitations as described in independent claims 1, 18 and 19.

The disadvantage of the Matt structure is that with pressing on of the cam (2) onto the shaft (1), already at the beginning of the cam opening (5) via the funnel-like widening (6), a force effect acts on the cam, and so tensioning in the cam material can occur. This tensioning leads to microscopic tears in the structure and can cause a weakening or collapse of the attachment operation, and hence can cause functional destruction of the shaft based on the deformation.

The claimed present invention overcome this drawback by making a hub for pressing onto a base body, whereby the hub has a hub opening, defined by hub front faces, and whereby the hub has an insertion area tapering in the press-on direction P. The hub opening is characterized by a first cylindrical section arranged between the front face and insertion area as viewed in the press-on direction. The hub as in claims 1, 18 and 19 each have a first cylindrical section of the hub opening, whose diameter is at least the same size as the largest diameter of the base body. Such diameter permits a simple placing of the hub on the base body avoiding the existing connection strains in the region of the front face. This first cylindrical section is different from the funnel-like widening (6) of Matt. The first cylindrical section of claims 1, 18 and 19 avoids a direct effect of force between the base body on which the hub is to be placed and the hub in the region of the front face. This is due to the fact that the deformation of the material aggregate on the shaft starts first in the tapered insertion region upon pressing-on of the hub on the base body. Thus the connection strains in the cylindrical section are avoided preventing microscopic tears or deformations in the body which supports the hub. It can clearly be appreciated that the material aggregate (7) of Matt makes direct contact with the funnel-like widening (6) located at the end face (5) first, which is substantially different than the present invention in claims 1, 18 and 19.

The Applicant requests that the Examiner reconsiders his rejections of the invention in view of the well established principle that small differences in a crowded art can constitute patentable improvement. See *In re Baum*, 51 USPQ 470 (CCPA 1941)

and *In re Lange*, 126 USPQ 365 (CCPA 1960). In considering this principle, the Applicant would also request that the Examiner take note to the court decision which notes that “apparent simplicity has been held to furnish strong argument for patentability where, as here, a need has existed for a structure of the nature disclosed and claimed. The fact that a solution to a problem is simple, or appears to be simple when viewed in retrospect, does not mean that the solution was obvious when it was conceived.” See *Ellipse corp. v. Ford Motor Co.*, 171 USPQ 513.

Since the Matt reference does not disclose, teach or suggest the claimed structural limitation of the “first cylindrical section”, then it is believed that independent claims 1, 18 and 19 are not anticipated by Matt and is therefore patentably distinct and in condition for allowance. Claims 1-17 are felt to patentably distinguish over the prior art references because of their above-mentioned dependency from claim 1.

*Regarding claim 3*

The Matt reference does not disclose, teach or suggest the material aggregate (7) being “parallel to the longitudinal axis of the hub”. The material aggregate (7) in Matt has a specific diameter, and therefore can not be parallel with the longitudinal axis of the hub [col. 3 lines 23-25; and Figs. 4, 5, 6 and 7].

*Regarding claims 4 and 5*

The Matt reference does not disclose, teach or suggest the insertion area (tapering widening 6) as being a curved profile. The Matt reference specifically discloses the insertion area (6) as a funnel shape formed by a cone or planar surface [col. 4 lines 19-24]. It can clearly be appreciated that a cone and a planar surface can not produce a curved profile.

*Regarding claims 7-14*

The Matt reference does not disclose, teach or suggest the insertion area (6) being divided into two truncated cone subsections having separate and independent angles.

Additionally, the first conical angle of the claimed present invention is  $10^{\circ}$  to  $30^{\circ}$  and second conical angle is  $1^{\circ}$  to  $15^{\circ}$ , as in claims 13 and 14. This angle leads to an expanded contact area between the hub and the shaft, which creates an approximately uniform frictional connection between the hub and base body. Based on such a structure, a possible maximum of connection strains is substantially reduced or avoided, and therewith, non-uniform and damaging loads are reduced.

*Regarding claim 15*

The Matt reference does not disclose, teach or suggest at least one recess extending over the entire length of the hub. The claimed recess defines a part of the periphery of the hub opening and the recess extends radially outward at a maximum to the diameter.

**Regarding the Claim Amendments**

Claim 18 has been amended to correct an antecedent based error. No new material has been entered since the amendment was directed towards introducing limitations already in claim 18.

**Summary**

It can clearly be appreciated that the Matt reference does not disclose, teach or suggest the use of a first cylindrical section as in claims 1, 18 and 19, and is therefore believed not to be a proper 35 U.S.C. 102(b) rejection. Claims 1-17 are felt to patentably distinguish over the prior art references because of their above-mentioned dependency from claim 1.

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter

found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Applicant has endeavored to address all of the Examiner's concerns as expressed in the Office Action. Accordingly, amendments to the claims, the reasons therefor, and arguments in support of patentability of the pending claim set are presented above. Any claim amendments which are not specifically discussed in the above-remarks are made in order to improve the clarity of claim language, to correct grammatical mistakes or ambiguities, and to otherwise improve the clarity of the claims to particularly and distinctly point out the invention to those of skill in the art. Finally, Applicant submits that the claim limitations above represent only illustrative distinctions. Hence, there may be other patentable features that distinguish the claimed invention from the prior art.

With the above amendments being fully responsive to all outstanding rejections and formal requirements, it is respectfully submitted that the claims are now in condition for allowance, and a notice to that effect is earnestly solicited. Should the Examiner feel that there are further issues which might be resolved by means of telephone interview, the Examiner is cordially invited to telephone the undersigned at (403) 444-5695, or by email at davidguerra@internationalpatentgroup.com.

No additional fee is due.

Respectfully Submitted,

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